

Table 5S-11 Summary of epidemiologic studies of exposure to sulfur dioxide and fertility/pregnancy effects.

Study	Location (sample size)	Mean SO ₂ (ppb)	Exposure Assessment	Selected Effect Estimates ^a (95% CI)
Fertility/Reproduction				
Legro et al. (2010)	Northeastern United States (n = 7,403 women)	59	Spatially kriged from monitors	Live birth Medication start to oocyte retrieval: 1.00 (0.98, 1.02) Oocyte retrieval to embryo transfer: 0.99 (0.98, 1.00) Embryo transfer to pregnancy test (~14 days): 0.99 (0.98, 1.00) Embryo transfer to birth: 0.99 (0.95, 1.04)
Slama et al. (2013)	Teplice, Czech Republic (n = 1,916)	NR	Single monitor	Fecundability ratio 60 days before the end of 1st mo of unprotected intercourse 0.93 (0.82, 1.05) PM _{2.5} adjusted: 1.00 (0.88, 1.15) NO ₂ adjusted: 0.98 (0.85, 1.11)
Pregnancy				
Lee et al. (2011)	Alleghany County, PA, U.S. (n = 1,696)	8.4	Interpolated concentrations at 13.4-m ² grid centroid from space-time ordinary kriging based on monitoring data	C-Reactive protein (% change) NR
{Lee, 2012, 1258305}	Alleghany County, PA, U.S. (n = 1,684)	8.6	Interpolated concentrations at 13.4-m ² grid centroid from space-time ordinary kriging based on monitoring data	Blood pressure (% change) NR

Table 5S-11 (Continued): Summary of epidemiologic studies of exposure to sulfur dioxide and fertility/pregnancy effects

Study	Location (sample size)	Mean SO ₂ (ppb)	Exposure Assessment	Selected Effect Estimates ^a (95% CI)
Xu et al. (2014)	Florida, U.S.	4.69–8.72	Nearest monitor, within 20 km	Hypertensive disorders of pregnancy T1: 1.19 (1.04, 1.36) T2: 1.00 (0.85, 1.15) EP: 1.27 (1.02, 1.55)
Zhou et al. (2014)	Chongquig, China	12–39	Monitor	Semen volume (mL) 0.30 (–0.03, 2.55) Sperm concentration (10 ⁶ /mL) 0.70 (0.03, 1.56) Progressive motility (PR ^b , %) –0.98 (–1.88, 0.98) Total motility (PR + NP ^b , %) –0.78 (–1.50, 0.73) Normal morphology (%) –9.45 (–22.88, –0.20) Motile sperm VCL ^b (μm/s) –3.03 (–22.55, 17.03) Motile sperm VSL ^b (μm/s) –3.23 (–6.25, 0.45) Motile sperm LIN ^b (%) –1.18 (–2.70, 2.38)
Robledo et al. (2015)	United States	3.34–3.36	Modeled, CMAQ Delivery hospital referral region	Gestational diabetes (OR) Preconception: 1.08 (1.02, 1.14) T1: 1.06 (1.00, 1.12)

SO₂ = sulfur dioxide; CI = confidence interval; mo = month; PM = particulate matter; NO₂ = nitrite; PA = Pennsylvania; m = meter; n = sample size; U.S. = United States of America; km = kilometer; T1 = first trimester; T2 = second trimester; T3 = third trimester; EP = entire pregnancy; NR = no quantitative results reported; CMAQ = community multiscale air quality; OR = odds ratio PR = progressive; NP = non-progressive; VCL = curvilinear velocity; VSL = straight line velocity; LIN = motile sperm linearity.

^aRisk per 5-ppb change in SO₂ unless otherwise noted.